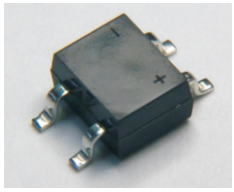
Low V_F Schottky Bridge Rectifiers

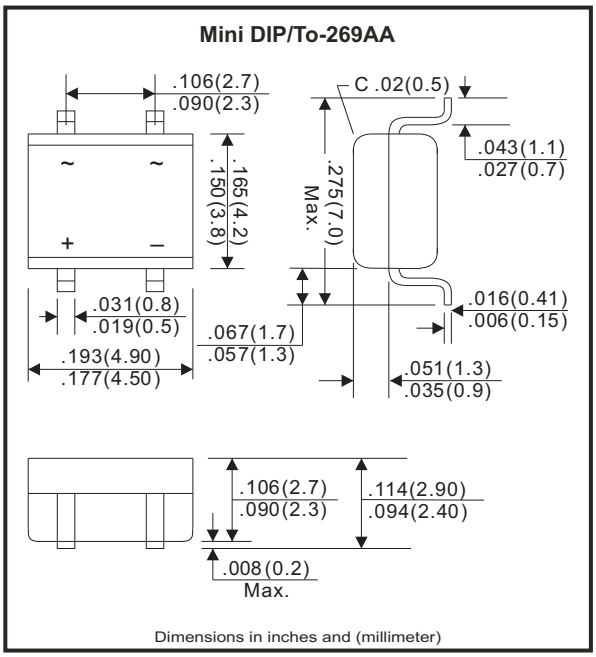
CDBHD120L-G Thru. CDBHD1100L-G

Reverse Voltage: 20 to 100 Volts
Forward Current: 1.0 Amp
RoHS Device



Features

- Low Vf Schottky barrier chips in bridge
- Metal-Semiconductor junction with guard ring
- High surge current capability
- Silicon epitaxial planar chips
- For use in low voltage, high efficiency inverters, free wheeling, and polarity protection applications
- Lead-free part, meet RoHS requirements



Mechanical data

- Case: Mini-Dip bridge (TO-269AA) plastic molded case
- Epoxy: UL94-V0 rated flame retardant
- Terminals: Solderable per MIL-STD-750 Method 2026
- Polarity: As marked on body
- Mounting Position: Any
- Weight: 0.0078 ounces, 0.22 grams

Maximum Ratings and Electrical Characteristics

Parameter		Symbol	CDBHD 120L-G	CDBHD 140L-G	CDBHD 160L-G	CDBHD 180L-G	CDBHD 1100L-G	Units
Maximum repetitive peak reverse voltage		V_{RRM}	20	40	60	80	100	V
Maximum DC blocking voltage		V_{DC}	20	40	60	80	100	V
Maximum RMS voltage		V_{RMS}	14	28	42	56	70	V
Peak surge forward current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)		I_{FSM}	30.0					A
Max. average forward current 0.2*0.2"(5.0*5.0mm)copper pad area,see Figure 1		I_{AV}	1.0					A
Max. instantaneous forward voltage at 1.0A (Note 1)		V_F	0.44		0.625	0.75		V
Max. DC reverse current at rated DC blocking voltage	T_A=25°C	I_R	0.50					mA
	T_A=100°C	I_R	20.0					
Typical junction Capacitance (Note 2)		C_J	250		125			pF
Typical thermal resistance (Note 3)		$R_{\theta JA}$ $R_{\theta JL}$	85.0 20.0					°C/W
Operating junction temperature Range		T_J	-55 to +125					°C
Storage temperature Range		T_{STG}	-55 to +150					°C

Note 1. Pulse test: 300μS pulse width, 1% duty cycle
2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts
3. Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2x0.2"(5.0x5.0mm) copper pad areas.

RATING AND CHARACTERISTIC CURVES (CDBHD120L-G thru CDBHD1100L-G)

Fig.1 Forward Current Derating Curve

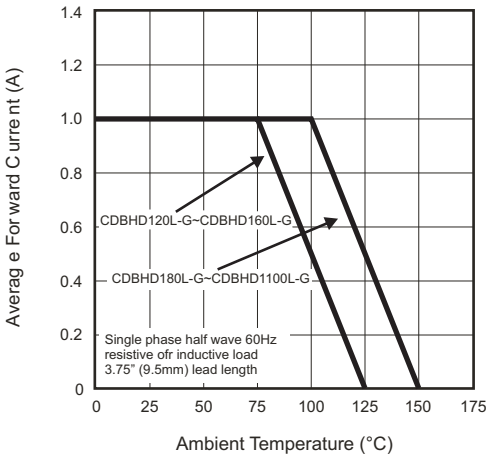


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

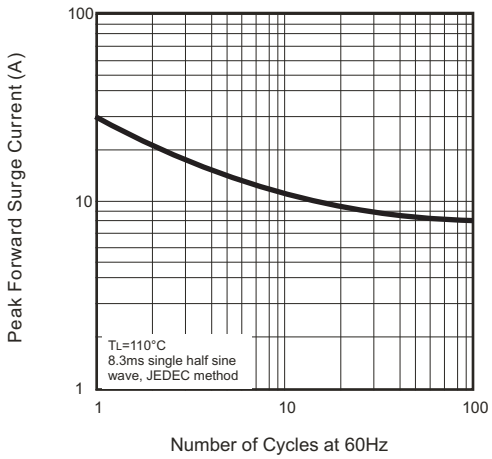


Fig.3- Typical Instantaneour Forward Characteristics

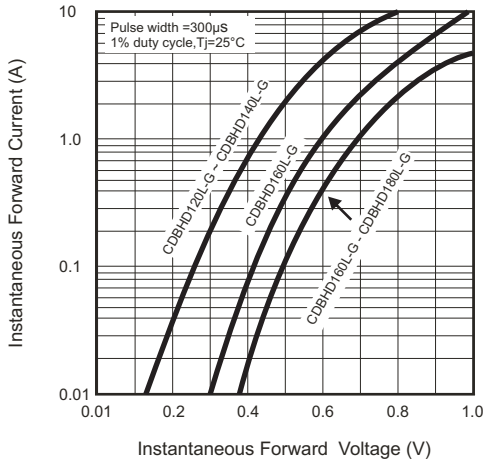


Fig.4A- Typical Reverse Characteristics

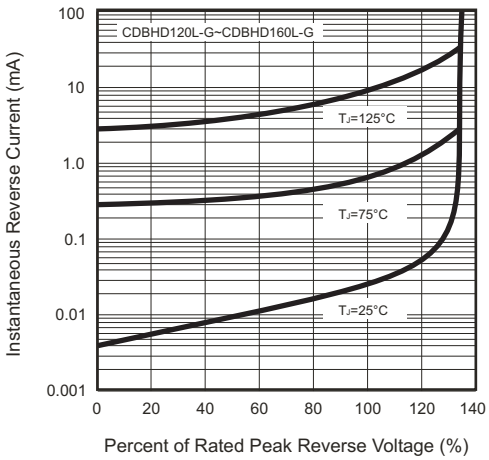


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

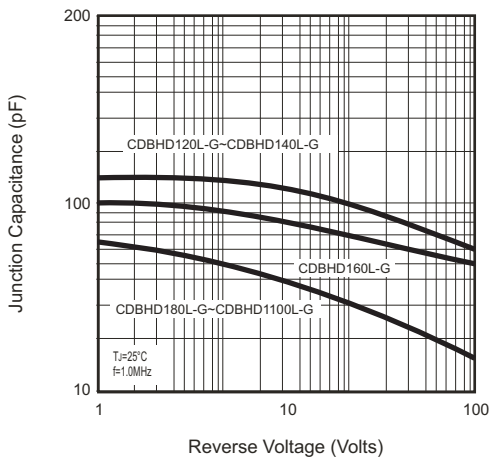
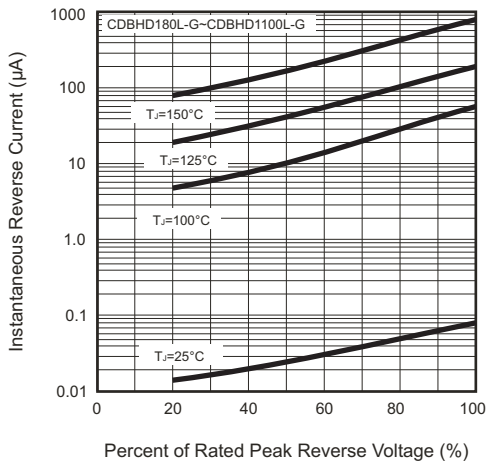
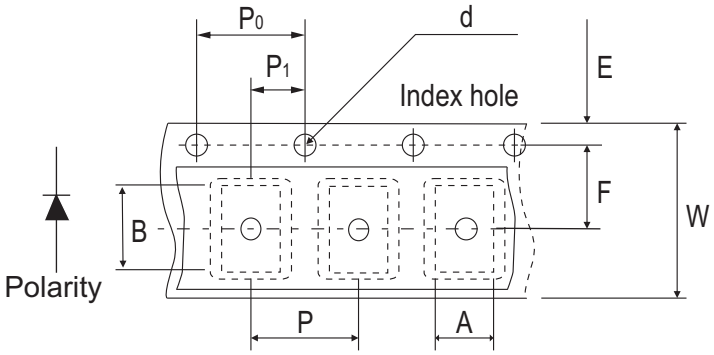
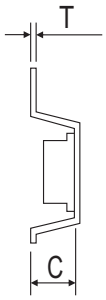


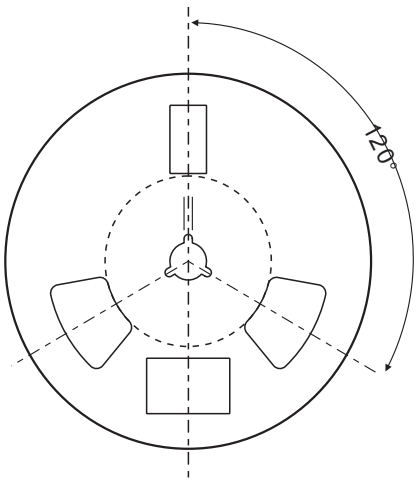
Fig.4B- Typeical Reverse Characteristics

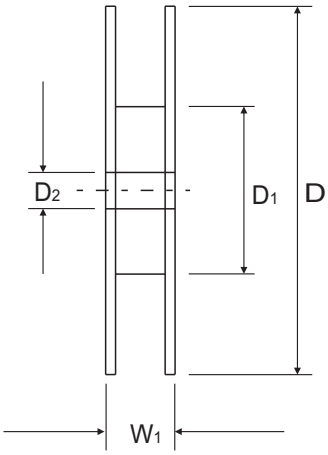


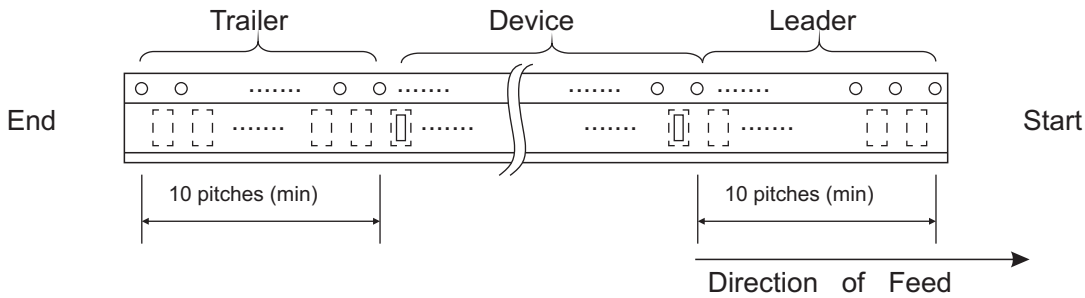
Reel Taping Specification









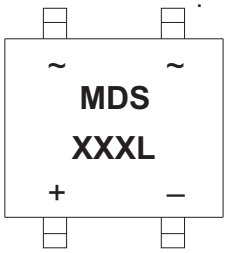


	SYMBOL	A	B	C	d	D	D1	D2
Mini-DIP/TO-269AA	(mm)	5.00 ± 0.10	3.20 ± 0.10	2.90 ± 0.10	1.55 ± 0.10	330MAX	50 MIN.	13.00 ± 0.20
	(inch)	0.197 ± 0.004	0.126 ± 0.004	0.114 ± 0.004	0.061 ± 0.004	12.992MAX	1.969 MIN.	0.512 ± 0.008

	SYMBOL	E	F	P	P0	P1	W	W1
Mini-DIP/TO-269AA	(mm)	1.75 ± 0.10	5.50 ± 0.10	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	12.00 ± 0.20	18.40 MAX
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.472 ± 0.008	0.724MAX

Marking Code

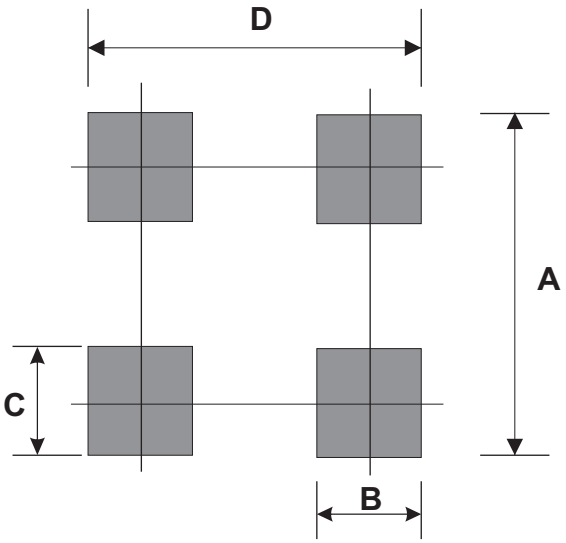
Part Number	Marking Code
CDBHD120L-G	MDS12L
CDBHD140L-G	MDS14L
CDBHD160L-G	MDS16L
CDBHD180L-G	MDS18L
CDBHD1100L-G	MDS110L



XXL / XXXL = Product type marking code

Suggested PAD Layout

SIZE	Mini-DIP/TO-269AA	
	(mm)	(inch)
A	6.91Min	0.272Min
B	0.58Min	0.023Min
C	0.76Min	0.030Min
D	2.67Min	0.105Min



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
Mini-DIP/TO-269AA	2,500	13